PARALYSIS DUE TO REAPPEAR, FLEXNER WARNS

Infantile Plague May Resume Sweep Next Summer, He Says

DENIES THAT INSECTS SPREAD INFECTION

Scientists Are Told of Disease Peril, and Get Instructions

Dr. Simon Flexner, of the Rockefeller Institute, in a public lecture at Columbia yesterday afternoon to members of the American Association for the Advancement of Science, predicted that next summer would see a return of infantile paralysis in epidemic form.

"I am not fond of the role of being a prophet," said he, "but I think all the indications are that the disease is here and will stay for a considerable period. It has been here since 1900, though its victims were not so many as in the last year, but it is not probable that having got a strong hold it will easily give way.

Forewarning Is Given

"On the other hand, the indications are that the community which has suffered seriously in one year may not suffer the next. I am inclined to think that the disease will be more widespread this next summer, and therefore you should have such knowledge of it that you will not only be forewarned but forearmed."

Dr. Flexner traced the history of infantile paralysis in epidemic form and described the infinitely minute microorganism which causes it. The disease he described as contagious, and as spread both by victims suffering from it so slightly that their indisposition did not keep them indoors and by perfectly healthy persons who acted as carriers. He had found little to substantiate the theory that insects spread the disease, he said, all experiments seeming to point to its direct transmission from one person to another through infection of the mucous membranes of the nose and throat.

But one of the most dangerous discoveries regarding the plague, in Dr. Flexner's estimation, was that it occurred frequently in such light form as almost to defy diagnosis, showing no paralysis or meningitis, symptoms which occurred only in the more severe cases. Yet these light cases provided the greatest social menace as agents in spreading the contagion. A more universal use of the spinal fluid test and the consequent strict quarantining of the lightly afflicted must precede, he thought, any successful war on an infantile paralysis epidemic.

Many Meetings Held

Yesterday's short span was crowded with the meetings of the different sections of the American Association and its many affiliated societies. A symposium on thrift before the section on social and economic science in the School of Mines, Columbia, occupied both morning and afternoon sessions of that section.

Clark Williams, ex-Superintendent of Insurance, described the effect of the Morris plan on the development of thrift. A. Parker Nevin, general counsel of the National Association of Manufacturers, enumerated some "Objections to Compulsory Sick Insurance." He, as well as Colonel George Pope, president of the association, and J. Scofield Rowe, vice-president of the Ætna Life Insurance Company, attacked the provisions of the Mills bill, which were defended by State Senator Ogden Mills, their author.

Engineers Open Day

The engineering section began the day with a session devoted to the problems of sanitary engineering, including a pure water supply and urban sewage disposal, and continued it during afternoon and evening at the Assembly Hall of the Automobile Club of America with consideration of those of highway engineering.

The mathematicians and the naturalists celebrated the accomplishment of their daily programmes with dinners, the former at the Park Avenue Hotel and the latter at the McAlpin. In the evening Professor A. A. Noyes, of the Massachusetts Institute of Technology, gave a public lecture at the Museum of Natural History on "Nitrogen and Preparedness."

Clean Teeth Seven Times a Day, Scientists Told

"Little things" like cleaning the teeth and taking shower baths have been so important to big business that the United States Steel Company and other corporations now spend millions of dollars yearly in encouraging such details of personal hygiene among their employes. Persons who are accustomed to pass lightly over the welfare work done in large industrial plants heard it vigorously defended yesterday by Dr. Thomas Darlington at the School of Mines in Columbia University at the afternoon session of the social and economic section.

"Decaying teeth do more harm than alcohol," said Dr. Darlington. "Dyspepsia and rheumatism are due to unclean mouths. When forty-eight kinds of bacteria are found in the mouth, isn't it foolish of people not to clean their teeth before meals, so as to prevent these bacteria from mixing with their food? Seven times a day is none too often to clean the teeth, before and after each meal and before going to bed."

Shower baths for miners in the United States Steel Corporation mines at Mesaba, Mich.; a private herd of cows for the babies of the Maryland Steel Company employes, vegetable gardens for the employes of the Frick Coke Company and drinking fountains close to the furnaces of the Bethlehem Steel Works were some of the devices shown in colored slides by Dr. Darlington.

"It was Oliver Wendell Holmes who discovered washing the hands," said the lecturer, with a twinkle of appreciation for this astonishing statement. "Yes, it was he who discovered that when doctors went directly from the operating room to the maternity ward without disinfecting their hands the patients always died. It is equally true that if workmen do not wash their hands before eating they will carry germs into their system.

"The workingmen's compensation reports show that thousands of dollars are lost to business and thousands of illnesses caused in workingmen's families because men neglected the simple precaution of washing their hands. The big industrial plants now provide large, convenient wash basins for the men. This is justified by business, but it is inspired, too, by brotherly love on the part of the mill owners."

At the morning session Edson S. Lott, president of the United States Casualty Company, denounced social insurance as a step toward socialism. Senator Ogden Mills, who introduced the social insurance bill at Albany last winter, was on the programme, but was unable to be present to defend his project.

E. E. Rittenhouse, commissioner of the Equitable Life Insurance Company, spoke on "Thrift from the Life Insurance Point of View," deploring the growing extravagance of the American people, as shown by their carelessness in allowing insurance policies to lapse.

Flexner Lauds Nation's Gain in Research Work

"The United States is now on a par with any European nation in scientific knowledge and extent of research work," Dr. Simon Flexner, of the Rockefeller Institute, said at a dinner of the Federation of American Societies of Experimental Biology at the McAlpin last night.

"In a quarter of a century," he continued, "it will be far ahead of any of them—even Germany. America will lead the world in scientific thought and research." He commented on the remarkable strides made in the last decade.

Dr. Matthew B. Mendel, of Yale, asserted that the biologist who made two blades of grass grow where but one had grown before was as much or more of a public servant as the politician or statesman. "There is a general misguided idea about public servants," he said. "In reality, every man who does his work well is a public servant.

"No board of trustees ever made a machine, and no new scientific principle was ever discovered at a directors' meeting," he added.

Scientist Shows Need of U. S. for Nitrogen

"Nitrogen and Preparedness" was the subject last night at the American Museum of Natural History of an address by Dr. A. A. Noyes, of the Massachusetts Institute of Technology. He spoke at a meeting of the American Chemical Association.

"The subject is one of the greatest importance to our people and to the human race," said Dr. Noyes, who was appointed by the Secretary of War to study the possible methods of securing an adequate nitrogen supply. "Without nitric acid all means of defence are futile, for upon it depends our ammunition supply. It enters into every form of explosive.

"The supply in this country comes principally from the saltpetre beds of Chili, which we might not be able to draw upon in time of war. It would be advisable for the government to lay in a year's supply to keep in reserve until other sources could be made available. About 300,000 tons should be enough."

Ammonia derived from coal is another possible source of an adequate supply, Dr. Noyes said. It is estimated that 40,000 tons of nitrogen in this form were produced in the country during 1914.

Still another possible source, Dr. Noyes continued, would be by development of the fixation process, which converts nitrogen in the air into ammonia or nitric acid. This, he said, has been developed on a large scale in European countries, notably Norway, where there is an abundance of cheap water power, adding that the United States should seek to develop its water power resources, particularly in the Southwest.

"By so doing," said Dr. Noyes, "cheaper fertilizer could be supplied our farmers, who pay much more than the German or Norwegian."

After the meeting a reception was tendered the visiting scientists by the museum and local chemical societies.

Rotary Traffic System Urged for Fifth Avenue

A system of rotary traffic for Fifth Avenue, which would virtually do away with traffic policemen except at the rush hours was explained last night by William P. Eno, of Washington, before the Highway Engineering division of the American Association for the Advancement of Science. The meeting was held in the Automobile Club.

Mr. Eno said that his system, an application of the rotary system in Columbus Circle, was being used in Paris, Washington, Detroit and other cities. He proposed drawing a white circle at intersections on Fifth Avenue. All automobiles would follow the circle to the right, and vehicles, the drivers of which desired to cross Fifth Avenue, would merely swing into the circle. Mr. Eno said that, with no blockading, the stream of vehicles would not be so thick, so that vehicles would find no difficulty in breaking into and out of the circle of moving traffic, as they now do in Columbus Circle.

"Safety isles would have to be built for pedestrians in the middle of the streets, just outside the circle," said Mr. Eno, "and people on foot would find it easy to cross half the street between the vehicles. Of course, much would have to be left to the discretion of chauffeurs, but we are depending a great deal on their carefulness now. The traffic would move slowly, but without any halt whatsoever."

Mr. Eno said that one-way traffic system, put into effect in certain narrow New York streets in 1907, was no new thing. Havana, Cuba, had it before New York, and the ancient city of Pompeii before the Cubans thought of it, he declared. He stated that traffic direction in one-way streets of Pompeii was indicated by sculptured miniature chariots.

GOVERNMENT OWNERSHIP OPPOSED BY NEW HAVEN

President Elliott Urges Business Men to Fight Against It

Springfield, Mass., Dec. 28.—Three hundred business men from forty-six cities and towns of Massachusetts, in mass meeting here to-night, under the auspices of the State Board of Trade, adopted resolutions urging that the New Haven Railroad be permitted to retain control of its boat lines, that the Interstate Commerce Commission have final authority in fixing rates and in the issuance of railroad securities, and that the Interstate Commerce Commission receive complete power to investigate railroad labor disputes before a strike or lockout can be declared.

Howard Elliott, president of the New Haven road, asked the business men to use their energies to restore public confidence in the railroads, to stave off government ownership. Frank W. Whitcher, president of the State Board, presided.

Other speakers were Amos L. Hatheway, of the Boston Chamber of Commerce, and G. L. Graham, traffic manager of the National Association of Wool Manufacturers.

Psychology Turns Timid Into Fighters, War Proves

German and French Effectiveness Climax of Tests on Minds and Subtle Developments of Courage, Dr. Hall Tells Science Convention

The effectiveness of the German and French armies in the present war as compared with the British and Russian is due to the use of applied psychology. Such is the conclusion reached by Dr. G. Stanley Hall, president of Clark University, in a paper he contributed yesterday at the convention of the American Association for the Advancement of Science.

Dr. Hall delved deeply into the psychology of war, and found an explanation of it in what he termed the "reversionary conceptions of Freud, Pfister and Patrick, that it is more or less normal for man at times to plunge back and down the evolutionary ladder and to immerse himself in rank, primitive emotions and to break away from the complex conventions and routine of civilized life and revert to that of the troglodytes in the trenches, and to face the chance of instant death when the struggle for survival is at its maximum in the bayonet charge."

"The war has given the world its greatest lesson in scientific efficiency," said Dr. Hall. "Just as Russia in the war with Japan did not begin to realize how far the latter country had moulded all its pre-Meji and indeed liberal culture generally, and focussed almost its entire energy upon practical efficiency, so none of the Allies, least of all England, realized how far Germany had gone in casting off the culture of half a century ago and in almost a single generation acquiring a new soul that made it, instead of the least, the most hard-headed, practically effective nation the world has ever seen, with hardly a vestige of the old, speculative, sentimental traits of the days before 1870.

Tests Proved Big Value

"As pure chemistry failed to appreciate the value of the formula for making nitrate, which Germany had secretly bought from its Norse discoverer, and which enabled it to produce 300,000 tons of ammunition during the first year of the war at one-third its cost to the Allies, so its tests of the senses, fatigue of all taking up arms; its establishment of distinct digestive, respiratory, muscular and nervous types of men; its temebility tests, which eliminate upset nervous systems from the ranks, both on donning the uniform and after every wound, thereby greatly reducing liabilities to panic; the French tests and assignment of men to infantry, cavalry, artillery, aviation corps, etc., according to the standard types of McAuliffe, Segoud, Thooris and Sorel—all have shown how immediately serviceable psychology could be made in this, to it, rather new field.

"Already enough of the carefully guarded military secrets of these tests for specific lines of military service have leaked out to suggest why the German and French armies are so much more effectively organized than the English and Russian, and to show that applied psychology can render the most valuable service to war."

Psychology of War

Dr. Hall took up, then, the psychology of the fighter, prefacing it with the brief psychological explanation of war already quoted. "We shall surely have a new and larger psychology of war," he said.

"First is the general perturbation at home when mobilization is decreed, the fraternization of all classes, normally more or less aloof; the rank credulities and superstitutions that suddenly arise and spread by psychic contagion, often to the clearest heads and coolest hearts, on the basis of high expectant tension; the mad rumors, fears, suggestions, often so painfully acute that the call to arms is a relief.

"Second comes the parting from home and loved ones; the donning of the uniform and with it the esprit de corps of the army; the intense activity of the training camp; the remarkable development of powers of effort and of endurance, which makes a weak man so often a marvel to himself, a power in which those from sedentary life often excel laborers and peasants; the games, songs, theatricals, often camp newspapers, in which phenomena we see instinct seeking to compensate, in Adler's sense, for a deeper but repressed anxiety.

Change Caused by War

"Life at this stage is so absorbing that the old life at home pales, and loved ones are thought of with surprising infrequency, and it becomes harder to write to them; the sudden setting up, physical and moral, of flabby individuals, to endure sleeplessness, heat, cold and hunger, as the individual learns to draw on his phyletic reserve, so that he is often surprised to find the largest drafts upon it honored.

"Third, in the advance into the trenches, where long silence and immobility are often necessary under the greatest excitement, breaking down many a nervous system, and when everything else, past and future, is forgotten in the struggle for present safety and physical comfort, the long confinement and constrained positions, interspersed with digging and baling water, with sometimes personal draftings to carry dispatches, bring food and drink, or rescue wounded friends from the 'hell strip' between the most advanced opposing lines, the acute attention to the sound of projectiles and their explosion. Thus, it is no wonder that some grow mad and rush wildly at the enemy and to certain death, or else back to safety, while those with stronger nerves develop with amazing suddenness a callousness to danger, fatigue, hunger, discomforts, while we sometimes have the unique reaction of sudden fraternization with the enemy which Kreisler and others have so well described.

The Fight for Life

"Fourth, when the charge is called some drop, fatigued and perhaps dead with exhaustion, while others, who thought themselves entirely spent, marvel at the sudden development of utterly unexpected resources in their own systems. Here each faces his man intent only on killing him and escaping from being killed himself.

"When this is all over the survivors frequently—and sometimes for days and weeks—live in an illusion that the charge is still on, and they cut, slash, stab imaginary enemies, yell, rush, and gesture, while the same obsessions haunt their sleep, so that even the hospitals a few days after the battle are noisy with the imagined battle which still rages in the soul.

"War is as necessary for monarchy as peace is for democracy," Dr. Hall continued. "One overemphasizes order, system, control; the other magnifies beyond bounds unrestrained personal liberty. Here is the issue of the present struggle."

Dr. Hall prefers democracy with all its faults. He spoke of the over-institutionalized life of Germany, saying:

"We must believe that the American way will lead mankind to an ever higher goal of evolution and emancipation from the countless repressions that dwarf and stunt it in the home, the school, church, industry and state.

HUGHES NEXT PRESIDENT OF LEGAL AID SOCIETY

Long a Member, Now Succeeds Arthur von Briesen as Head

Charles E. Hughes is to become president of the Legal Aid Society on January 1, when Arthur von Briesen's resignation takes effect, it was announced yesterday. Mr. Hughes has been a member of the society since its early days, and became honorary vice-president in 1911. He will be its third president. Edward Salomon served from 1876 to 1889, when Arthur von Briesen became president.

"What I think of the work of the Legal Aid Society," said Mr. Hughes yesterday, "is perhaps best indicated by my long membership in that organization. To take from the poor man a part of the burden which necessarily falls on him because of his poverty and see to it that he obtains in every proper case his legal rights has always seemed to me a part of the duty of the lawyer which I could not ignore.

"What would become of the 42,000 poor persons who were advised in 1915 did not this institution receive our support? If we lawyers have neighbors it is difficult to think of any better entitled to that description than the clients of the Legal Aid Society.

"Mr. von Briesen has set a wonderful standard by his long years as champion of the rights of the poor. I have been glad to accept this opportunity to be of what service I can as his successor."

$35,000 IS APPROPRIATED TO PATCH UP CITY HALL

Mayor Hopes to Save $115,000—Paving Is Allowed $2,000,000

An appropriation of $35,000 for further repairs on the City Hall was made yesterday by the Board of Estimate. The cupola and balustrade will be restored, the rear wall of the building painted and the marble façades cleaned. Tilden Adamson, Director of the Bureau of Contracts, explained that the city architect had told him that if these repairs were not done now it would be necessary to expend $150,000 for the same work later. Mayor Mitchel declared that the City Hall was one of the few buildings architecturally creditable to the city and should be preserved.

Frank L. Dowling, president of the Board of Aldermen, wanted to know why the repairs should not be done all at once. He said they had been going on for the last ten years. Mayor Mitchel replied that any comprehensive plan had been so large that it had been impossible to get the Board of Estimate to approve the necessary appropriation.

The board appropriated $2,000,000 for the repaving of streets in all boroughs; $593,500 in corporate stock for structure and equipment for motorizing the Ninth and Eleventh Street cleaning districts; $29,753 for increases during the next three months for compensation to street sweepers, $330,000 for the erection of a workhouse for women and $200,000 for a bridge over the Bronx River at 174th Street.

P. S. C., DESPITE SLIGHTS, URGES NEW GATES FOR "L"

Delay of I. R. T. at Hearing Angers Service Commissioners

The Public Service Commission is trying to get the Interborough Rapid Transit Company to improve the type of gates used on its Manhattan elevated lines. At the hearing yesterday Commissioner Hodge described the present gates as inadequate and antedating the Jay Gould management of the elevated lines.

Members of the commission were incensed when officials of the Interborough failed to appear at the scheduled hearing. Commissioner Hodge declared that he had taken the matter up personally with Theodore P. Shonts, president of the Interborough, and that he had promised to have George Keegan, assistant to the general manager, present with designs of a better type of gate. The Commissioner accused the Interborough officials of attempting to "stall." The hearing was adjourned until the afternoon, when Mr. Keegan appeared.

Commissioner Hodge pointed out that the Brooklyn elevated lines used a type of sliding gate, and the New York, New Haven & Hartford a collapsible type of gate, both of which were much better than the old swinging gate used on the Manhattan lines.

The Interborough representative intimated that the company would prefer a sliding gate. At the request of Commissioner Hodge, Mr. Keegan promised to submit to the commission within ten days drawings of a type of gate which the Interborough would be willing to install for experimental purposes on two or three trains.